

### REMARKS

Applicant respectfully requests reconsideration. Claims 36, 37 and 54-77 were previously pending for examination. Claims 36, 37, 54, 58-69 and 72-75 are amended herewith without prejudice or disclaimer. Claims 70, 76 and 77 have been canceled. Therefore, claims 36, 37, 54-69 and 71-75 are pending for examination with claims 36 and 73 being independent claims. Applicant expressly reserves the right to pursue any subject matter canceled herein in this or one or more continuing applications.

No new matter has been added.

### Claim Objections

The Examiner objected to claim 74 for reciting “comprises” instead of “comprise”. Without conceding the correctness of this objection, and in the interest of expediting prosecution of this application, Applicant has amended claim 74 as suggested by the Examiner. Accordingly, Applicant believes that this objection is now moot.

The Examiner also objected to claims 74, 76 and 77 for reciting “C5” without allegedly mentioning what it stands for. Applicant respectfully traverses this objection and maintains that one of ordinary skill in the art would understand what is meant by the term. Nevertheless, in the interest of expediting prosecution, claim 74 has been amended and claims 76 and 77 have been canceled. Therefore, Applicant believes that this objection is now moot.

### Rejections under 35 U.S.C. §112

The Examiner rejected claims 75-77 under 35 U.S.C. §112, first paragraph, as allegedly failing to comply with the written description requirement for containing subject matter that was not described in such a way as to reasonably convey to one of skill in the art that the Applicant, at the time the application was filed, had possession of the claimed invention. Essentially, the Examiner has argued that the recitation of “presence or absence of C5 epimerization” constitutes new matter. Applicant notes that it is believed that the Examiner mistakenly included claim 75 instead of claim 74 in this rejection.

Without conceding the correctness of this rejection, and in the interest of expediting prosecution of this application, Applicant has amended claim 74 such that it recites the presence

or absence of iduronic or glucuronic acid instead of C5 epimerization. Support for this amendment can be found in the instant specification, for example, on page 13, lines 3 and 4. Accordingly, Applicant believes that this rejection is now moot.

Reconsideration and withdrawal of this rejection is respectfully requested.

The Examiner rejected claims 36, 37 and 54-77 under 35 U.S.C. §112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.

The Examiner argued that claim 36 recites “the monosaccharide or disaccharide” without clear antecedent basis for the recitation. Applicant has amended claim 36 to recite “the monosaccharides or disaccharides”.

The Examiner argued that claims 36 and 73 recite “the values” without clear antecedent basis for the recitation. Applicant has amended claims 36 and 73 such that the recitation of “the values” and “the value or values”, respectively, each have clear antecedent basis.

The Examiner has also argued that claims 36 and 73 recite “using” which is allegedly vague and indefinite. Without conceding the correctness of this rejection, and in the interest of expediting prosecution, Applicant has replaced the term “using” with “with”. Applicant maintains that based on the plain meaning of this term in the context of the claims, one of ordinary skill in the art would understand the determining steps that recite the term.

The Examiner has further argued that claim 58 is vague and indefinite for reciting “may be”. Without conceding the correctness of this rejection, and in the interest of expediting prosecution, Applicant has amended the claim to recite “can be” instead of “may be”.

The Examiner argued that the recitation of “the value” in claim 61 is without clear antecedent basis. Without conceding the correctness of this rejection, and in the interest of expediting prosecution, Applicant has amended claim 61 to recite “the values”.

Reconsideration and withdrawal of this rejection is respectfully requested.

#### Rejection Under 35 U.S.C. §102

Claims 36, 37, 54-64 and 66-72 are rejected under 35 U.S.C. §102(b) as allegedly being anticipated by van Kuik et al. (Carbohydrate Research, Volume 235, 1992, pages 53-68).

Applicant respectfully traverses. Van Kuik et al., contrary to the Examiner's assertions, do not provide all of the limitations of the claims. For example, van Kuik et al. do not teach one or more values that correspond to the nature and degree of sulfation or acetylation as recited in independent claim 36 let alone a data structure that comprises such a value or values, or their comparison. In support of this rejection, the Examiner has argued that any value corresponding to the oligosaccharides inherently correspond to the nature and degree of sulfation and acetylation. However, this is not the case. A value for an oligosaccharide is not necessarily one that represents the sulfation or acetylation of the oligosaccharide. In fact, there are a number of properties for which a value for an oligosaccharide can represent. Applicant has listed an extensive number of such properties in the instant specification on, for example, page 8. Further, Applicant notes that to establish an anticipation rejection based on inherency the missing descriptive matter must necessarily be present in what is described. The Examiner has not established that any of the values provided in van Kuik et al. necessarily corresponds to the nature and degree of sulfation or acetylation. In fact, the values provided in the cited reference are taught by van Kuik et al. to correspond to the identity of a number of monosaccharides not to the nature and degree of sulfation or acetylation as recited in claim 36. Therefore, van Kuik et al. do not anticipate the rejected claims.

Reconsideration and withdrawal of this rejection is respectfully requested.

#### Rejections Under 35 U.S.C. §103

Claim 65 is rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over van Kuik et al. (Carbohydrate Research, Volume 235, 1992, pages 53-68) as applied to claims 36, 37, 54-64 and 66-72 in the Examiner's anticipation rejection and further in view of van Kuik et al. (Trends in Biotechnology, Volume 10, 1992, pages 182-185). Applicant notes that the Examiner was not clear about whether this rejection was made against claim 65 as recited on page 9, second paragraph, of the Office Action or against claims 36, 37 and 54-72 as recited in the last sentence of page 10 of the Office Action. Nevertheless, the arguments presented below are applicable to rebut this rejection if it were made against any of the claims.

Applicant respectfully traverses. As argued above, van Kuik et al. (Carbohydrate Research, Volume 235, 1992, pages 53-68) do not teach one or more values that correspond to

the nature and degree of sulfation or acetylation, a data structure that comprises such a value or values, or their comparison. In addition, Van Kuik et al. (Trends in Biotechnology, Volume 10, 1992, pages 182-185) do not remedy this deficiency. Therefore, neither of these references alone or in combination teach or make obvious the methods of the rejected claims.

Further, while it has been argued that van Kuik et al. (Trends in Biotechnology, Volume 10, 1992, pages 182-185) describe that searches via other items (i.e., non-NMR values), such as molecular weight, can be performed, such a teaching, in fact, is not provided. Instead, what is provided is a search system whereby a known sequence is inputted so that citations of references that recite the sequence and information about the reference (e.g., authors' names, journal name, year of publication, etc.) and/or query sequence may be found. This is not a teaching of a search *via* the information. The information about the query sequence is instead a possible output rather than an input, and a search system whereby information about a query sequence is inputted in order to determine the identity of the sequence or a portion thereof is not provided.

Reconsideration and withdrawal of this rejection is respectfully requested.

Claims 73-77 are rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over van Kuik et al. (Carbohydrate Research, Volume 235, 1992, pages 53-68) and van Kuik et al. (Trends in Biotechnology, Volume 10, 1992, pages 182-185) and further in view of Hook et al. (Biochem Journal, Vol. 137, 1974, pages 33-43) and Bohne et al. (Journal of Molecular Modeling, Vol. 4, 1998, pages 33-43).

Applicant respectfully traverses. As argued above, contrary to the Examiner's assertion, neither van Kuik et al. reference teaches or makes obvious searches via other items in order to determine the identity of a polysaccharide's monosaccharides or disaccharides. Bohne et al. and Hook et al. do not remedy this deficiency. Bohne et al., as argued previously, merely provides methods for determining the three-dimensional structure of a known carbohydrate. Hook et al. merely provides characteristics possessed by heparin-like glycosaminoglycans. Neither of these references teaches the use of information about a query sequence to determine the identity of its monosaccharides or disaccharides, let alone what the information or the values that represent the information should correspond to to accomplish such a method. None of the references teach the use of a value or values that indicate whether the polysaccharide contains an iduronic or

glucuronic acid as recited in the rejected claims. Applicant understands that teachings need not come from a single reference for an obviousness rejection; however, the teachings must be somewhere provided. As the references do not provide a number of features of the rejected claims, such as those mentioned herein, this rejection cannot be sustained.

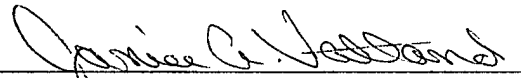
Reconsideration and withdrawal of this rejection is respectfully requested.

### CONCLUSION

A Notice of Allowance is respectfully requested. The Examiner is requested to call the undersigned at the telephone number listed below if this communication does not place the case in condition for allowance.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicant hereby requests any necessary extension of time. If there is a fee occasioned by this response, including an extension fee, that is not covered by an enclosed check, please charge any deficiency to Deposit Account No. 23/2825.

Respectfully submitted,



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